No 14

Dissertation
On
The use of Spiders web
In the cure
of
Intermittent Fever.

1. Spiders web in Interm.
2. Secale Cornutum
3. Capsicum Annuum
4. Charcoal - med: virt. of
5. Cort: Querci -
6. Polygala Senega
7. Xanthox: fraxinifol.
8. Camphore

Dr. Broughton
Sth Carolina
1818

M

Dear Sir

ensity of Sen
the use of the
is commence
In consequen
gate the Su

To you
duced me to
have to dedi

Nathaniel Chapman, M. D.

1

Dear Sir

During your lectures delivered in the University of Pennsylvania for the year 1817 you mentioned the use of the Spiders web in the cure of Intermittent fevers as communicated to you by Dr Jackson.

In consequence of which I have endeavoured to investigate the Subject, and hope my endeavours have not been fruitless.

To you I am indebted for the Idea which first induced me to make the investigation, and to you I beg leave to dedicate the product,

ches the subje
but little kno
a few prelim
on a unnece
the first place
the second to
induced me to
many difficulte
nation that ca
lected from my
mandly letters
their power to

From
under my observa
is, and argume
self incompetent
have the discuss
Bal.

Preface

As the subject of the following dissertation is (I believe) but little known by the Physicians of the present day, a few preliminary observations, I consider not improper or unnecessary. The laws of this institution compel me in the first place to compose a medical thesis, and a desire in the second to furnish a subject not already fully discussed induced me to make choice of the present; I am aware of the many difficulties I labour under in consequence of the little information that can be obtained from Authors; the greater part being collected from my own observations, & the verbal communications and friendly letters of those of my acquaintances who have had it in their power to gain any information on the subject.

From the operation and efficacy of the web as appeared under my observations, I am persuaded that many useful theories, and arguments might be deduced from it. But as I feel myself incompetent to the task, I shall state facts as they are, and leave the discussion of theories and arguments to some abler Pen.

In order to
shall proceed
modus oper
of intern
to no medi
ment of the
by the inse
shall refer
and proceed
purposes.

The
ing the leave
in the form
quat abundan
October.
the action of
when pres
assumes
tive & elastic
fibrous.

Aranearum Tela. Cobweb's.

In order to give a correct & systematic account of the cobweb I shall proceed to state first, the nature and appearance, 2d the modus operandi and 3rd its application and efficacy in the cure of intermittent fever.

1st As no medical information can be obtained from an account of the structure of the web, and the use it is applied to, by the insect which nature formed for its production. I shall refer you to the Encyclopedia under the head Aranea and proceed myself to the discussion applicable to medical purposes.

The web is found in the neighbourhood of old buildings among the leaves and branches of shrubs, or suspended from trees in the form of a delicate net work; where it is deposited in great abundance from the first of September to the middle of October. The fresh web, before it has been long exposed to the action of the sun & atmosphere is extremely glutinous, and when pressed together by the fingers or rubbed in a mortar, assumes a black appearance resembling India rubber in texture & elasticity, which however it soon loses becomeing hard and fibrous, if it is allowed to remain for the space of

from three
spirits of
made to adhe
ter, Gum. Ara
When dr
without taste
threads of very
This is
difficult to co
containing
collected previo
deprived of
from.
rations of
be most eff
Caldwells.
perhaps gum
wears the best
A rume
the cure of this
and others is the

two or three days after it has been spun it is completely deprived of its glutinous quality and the fibres cannot be made to adhere except by the addition of some gummy matter, Gum. Arabic answers this purpose.

When dried it is extremely light of a greyish colour without taste or smell, and has much the appearance of threads of very fine silk matted together.

This is by far the most usual appearance, as it is very difficult to collect a sufficient quantity of the fresh webs, each web containing not more than one or two grains; and if not collected previous to the third day after it is spun, it will be deprived of its gluten and consequently reduced to the dried form.

Before I enter upon the description of the preparations of the web and of the species of spider supposed to be most efficacious I shall insert an extract from Dr Caldwells notes in the first lines of Cullens practice, I am perhaps premature but upon consideration the present appears the best place for its insertion.

"A remedy now becomeing fashionable in Great Britan in "the cure of this complaint* and supposed to be efficacious above "all others is the spiders web in doses of from two to four grains

of Cuba during
It is said th
quotations of
pill previou
The specie
are unable t
This a
on of the dose
proper place,
Offic: Preps
medical use the
ble in water.
ssible to prepa
mixture; a
head like struc
it
reduced to pow
Pill, to which
ds of any other
Mass, or Gum. A
sufficient quantity

" taken during the paroxysm it shortens it, if before prevents it,
" but it is said that no Intermittent resists more than two or three
" repetitions of it, it is usually administered in the form of
" pill previously to the expected attack,
" The species of Spider whose web is most efficacious we
" are unable to designate, Caldwells Collen vol 1st 211th Page

This account I have found strictly correct with the exception of the dose; the difference which I shall mention in its proper place.

Office Preps With regard to the preparations of the web for medical use the Physician is extremely limited: it being insoluble in water, Proof Spirit, or even the human Saliva, it is impossible to prepare it either in form of decoction, infusion or tincture; In consequence of the gluten of the flesh, and the bread like structure of the dried web it is equally difficult to reduce it to powder; the only possible form therefore is that of Pills, to which it can easily be reduced when fresh without the aid of any other article, and when dried, by the addition of Crumb Bread, or Gum Arabic, the latter I have found most efficacious, a sufficient quantity of the Mucilage being added to form a Mass,

[illegible], The ch[illegible]
[illegible] to be th[illegible]
[illegible] opinion [illegible]
[illegible] Carolina (a[illegible]
[illegible]
[illegible] am [illegible]
[illegible] sufficiently [illegible]
[illegible] the [illegible]
[illegible]
[illegible] ality [illegible]
[illegible] tency, [illegible]
[illegible]
[illegible] the [illegible]
[illegible] calcul[illegible]
[illegible]
[illegible]
[illegible]
[illegible] defence
[illegible]
[illegible]
[illegible]

species. The Black spider has been supposed by Dr. R. James to be the most efficacious, ~~xxx the xxxx~~ and the same opinion has been advanced by Dr Joyas of Charleston S. Carolina (as will be mentioned in the sequel

This opinion I think can upon strict examination be incorrect and am satisfied that facts & arguments can be produced sufficiently strong to prove the assertion. Upon examination of the webs of the various species of spiders I found them all in the recent state possessed of the same glutinous quality, and when dried of the same fibrous structure.

A very peculiar substance appearance say, is in the formation of the web which entangles flies &c for the food of the insect and that the web of every species was equally calculated for this purpose;

This fact therefore being established that the webs of every species was the same both in appearance and utility, I am inclined to believe that like the chyle of the human system every substance taken into the stomach of the insect without regard to species) produce one homogeneous mass, qualified for every purpose, to which the web of any one species may be applied.

this opinion I confess to be theoretical, and perhaps erroneous but there are also facts corroborating which I shall here recount in stated. Having had a [illegible] by the effect of the [illegible] in disease & finding it difficult to procure the production of any one species, I collected promiscuously, and was pleased to find it in more than one instance productive of the best effects; another fact which I collected from the Encyclopædia under the head Araneus, is equally important, it is there stated that "every species of spider changes its colour & size according to age sex, and season; so that the black spider in one month and the black spider in another, though in appearance the same may be distinct species." With this I shall conclude this part of the description & proceed to that next in order.

The Modus operandi is the point next in question: a point of importance; which importance creates considerable regret, that I shall not have it in my power to give that information which my own inclination, would prompt or the nature of the subject demand; But as every article of the Materia Medica was not developed in a day, so the operation of each must be improved by time and observation.

the obscurity of the subject & the caution necessary to be attended to in all articles of experiment, I hope will be a sufficient excuse for the unsatisfactory account of the operation of the spanish web. In all the cases of disease which I have seen or heard of the exhibition of the web, no sensible, or at least no uniform operation could be observed: some patients were sensible of none, others of a slight diuretic, and some a nauseating effect, and one or two thought that it proved cathartic after remaining in the system, for the space of twelve or fifteen hours. These accounts being so incorrect & various I determined to ascertain (if possible) the correct operation by giving the web to healthy persons, & accordingly chose healthy Adults, and exhibiting the web. I detained the Patients in order carefully to observe any operation that might occur, the Pulse being timed, & the Patients kept in a recumbent posture.

I found from these experiments that the operation of the web, appeared principally to be upon the Arterial system; and perhaps in less time than any article already known. The Force & frequency of the Pulse being uniformly reduced; in some cases ten in others fifteen strokes

Dose.

Difficult

in a minute, and in one case the pulse, from being strong, full, became soft, small, and very compressible all which gradually took place within the space of two hours, after which time the others gradually assumed its former rate and frequency. This has been the only invasion effects could observe all other appearances but Unmalous,

As to theory of secretives and stimulants I shall be unwary on all diseases as leave to pass it over in silence.

Dose. Dr Lyal informed me that he gave the web in doses of twenty grains. I think a moderate one twelve to twenty grains to an Adult to be with some more efficacious, the usual time of exhibiting the web is most an hour previous to the attack.

Application & efficacy in Intermittent Fever.

A gentleman of veracity informed me that he had used the web with the best effect in the case of a servant of his who had been troubled with an Intermittent fever for the space of eighteen months. All the vacuantia usually employed were used, and Peruvian bark in large quantities

was inefficacious; at length he informed me of the web, he gave it every day before the expected attack, which produce a complete cure in the space of one week.

A second & a third case occurred which he treated in the same manner and with the same success.

He informed me that Dr Pomas was the Gentleman to whom he was indebted for his information. & being mutually acquainted with the Dr I wrote & received the following answer

"Dr Sir

"I have to acknowledge the receipt of your letter "respecting the spiders web. it is now near twenty years "since I was engaged in the Practice of Medicine, during "which I made use of the web in cases of Intermittent fever, "after the usual evacuants had been used and when the "Bark was inadmissible or ineffectual, [illegible] "[illegible] expected attack and "[illegible] Bark since, but think that the web [illegible] "[illegible]

"Yours truly"

(Sd)

[illegible]

[illegible] [illegible] received the above mentioned communication [illegible] [illegible] to a Medical Gentleman [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] requesting him to make such experiments [illegible] convenient [illegible], Dr. Jones, a graduate of the University of Pennsylvania and a practitioner [illegible] [illegible] has furnished me with the following account.

Dear Sir

According to your request I send you an account of two cases in which I exhibited the Spiders web, two Negroes had had Intermittent fever for [illegible] weeks accompanied with violent headache: one of them complained of the pain being more severe during the intermission Emetics and cathartics &c. had been given during the paroxysm and Bark during the intermission but still every evening it returned: finding the disease still continue I gave them the spiders web. to each 3 pills containing 4 grains were exhibited just before the chill came on which had the effect of shortning the fit considerably, 5 pills containing 4 grains were given to each at the next paroxysm which had the

effect of completely, nothing with the disease,

I am Truly

Henry M. Holmes.

A short time after I received the following letter from Dr. Hay a graduate of the University of Edinburgh and a practitioner of Medicine in the state of Va. Cand.

Dear Sir

"When at Cordesville* the other day, you asked me if I knew anything respecting the Medical "virtues of the cobweb; it appears like many others "which have had their advocates for the day, to fall "into disuse, as I have never seen any kind mentioned of it but in the older Authors – If you may "not have it in your power to consult some of "them and wishing to gratify your wishes on the subject "I have sent you an extract from Dr Jamesé's Dispensa"tory published in 1764. Araneus Lyc: the spider. "Both the spider and the web are used. the spider is said "to avert the paroxysm of fevers. if it be applied to the "Pulse of the wrist or the temples, but peculiarly recom"mended against a quartan, being enclosed in the rind pa

shall make the

the Counsel: nec

Hasell Nut* the web astringes and agglutinates & is therefore a
pulmonary, restrains bleeding and prevents an inflammation
. In Country people have a tradition, that a small quantity
of Spiders web, given about an hour before the fit of an ague
and repeated immediately before it, is effectual in cure of the
troublesome & sometimes obstinate distemper. This remedy is not
confined to our own country, and am well informed that
the Indians about North Carolina have great dependance on
this remedy for agues, to which they are much subject.
. and am acquainted with a Gentleman, long resident in
those parts, who assures me, he was himself cured by it of
that distemper. and indeed experience confirms the effi=
cacy of this medicine in the cure of agues.
. All that Lewis in his Materia Medica, pub.d in 1761
states on the subject is, Araneorum Tela. Cobwebs — These
are applied by the common people for stopping bleeding
of wounds, which they effect not by any styptic power,
but by adhering to the part and closing the orifices
of the vessels. Cullen in his Materia Medica makes no
mention of the Spider or its web — Rather can any
information on the subject be obtained from the

Edinburgh new Dispensatory as edited by Duncan, publ.d in 1814.),

I remain Yours with regard
Hezekiah. H. Hard.

A short time after this I had an opportunity of trying the effect of the web in the following Case.

Mr Gillaston aged 40 a native of No Carolina was attacked on the twentieth day of July 1817 with an intermittent fever of the Quotidian type, either feeling confidence in her own skill, or not sufficient in that of her Physician; medical aid was not applied and she attempted her own cure. The treatment as well as I could learn (and did not witness myself) was as follows. Antimonial and other emetics, purgatives, both saline and vegitable, and Peruvian Bark alone and combined with Turpentine. These proving unsuccessful a variety of Empirical prescriptions were tried to without the least effect one of which however contained a sufficient quantity of some mercurial preparation as to produce Ptialism, the patient laboring under the

ration of these
a experiment
more medicine
ith the prospect
ofitable by the
the 28th of Au
uration of sei
ter time pers
ared a few p
d, with direc
fore the expect
ter which if
dose to go
ith the effect
the hot stage,
dose was taken,
ever postponed
the third dose
found ~~that~~ ~~the~~
ith no chil

operation of these various articles of the Materia Medica, and experiencing no relief, was determined by taking no more medicine to allow the disease to wear itself out, with the prospect of a winter rendered tedious and uncomfortable by the effect of disease, This brought her to the 28th of August 1817 when being informed of her situation I visited and recommended the web which after some persuasion she consented to try, & prepared a few pills containing each 4 grains of the web, with directions to take three every day, an hour before the expected attack, for the first three days, after which if the fever was not checked to increase the dose to four pills, On the 31st she took the first with the effect of shortening the chill bringing on the hot stage, On the first of September the second dose was taken, the chill was completely lost and the fever postponed some hours, On the second of Sept. the third dose was exhibited, the fever that day was found ~~that day to~~ comparatively slight, attended with no chill, and of short duration, on the third

of Sept. four
ation, the Pa
an Intermittent
ffected the stom
rticles of the
Exhibit
in consequence of
t night air an
ort taking it
fair trial an

of Sept. four Pills were given and the fever did not return, the Patient was relieved in four days of an Intermittent of six weeks duration, which had baffled the strength of several of the most useful articles of the Materia Medica.

I exhibited the acid in several cases, but in consequence of some Patients exposing themselves to night air and unhealthy atmosphere, and others not taking it regularly, the article had not a fair trial and I have omitted their insertion.